DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1x.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014689 Address: 333 Burma Road **Date Inspected:** 09-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1100 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No Jesse Cayabyab **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A

N/A Yes **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No

34-0006 **Bridge No: Component: OBG Sections**

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint E1/E2 D1 and D2, outside the Orthotropic Box Girder (OBG) section: ABF welding personnel Mitch Sittinger (#0315) was performing repair welding using the Shield Metal Arc Welding (SMAW) process with QC Inspector Jesse Cayabyab present.
- 2) At weld joint E1/E2 D1 and D2, inside OBG section: ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the Shield Metal Arc Welding (SMAW) process with QC Inspector Tony Sherwood present.
- 3) At weld joint E2/E3 D1 and D2, inside the OBG section: ABF welding personnel Fred Kaddu (#2188) and Rick Clayborn (#2773) were in the process of excavating weld repairs with QC Inspector Tony Sherwood present.
- 4) At weld joint E2/E3-D1 and D2 outside the OBG section: ABF welding personnel Mitch Sittinger (#0315) was in the process of excavating weld repairs with QC Inspector Jesse Cayabyab present.

At weld joint E1/E2 – D1 and D2, outside the OBG section this QA Inspector observed ABF welding personnel

N/A

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Mitch Sittinger (#0315) performing repair welding using the SMAW process. This QA Inspector observed QC Inspector Jesse Cayabyab was present and monitoring the welding. This QA Inspector performed a verification of the welding parameters and observed the following: 128 amperes using a 3.2 mm E7018 electrode in the overhead (4G) position. The welding observed appeared to be in accordance with Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair.

At weld joint E1/E2 – D1 and D2, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) performing repair welding using the SMAW process. This QA Inspector observed QC Inspector Tony Sherwood was present and monitoring the welding. This QA Inspector performed a verification of the welding parameters and observed the following: 150 amperes using a 3.2 mm E7018 electrode in the flat (1G) position. The welding observed appeared to be in accordance with Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair.

At weld joint E2/E3 – D1 and D2, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) and Rick Clayborn (#2773) were in the process of excavating weld repairs. This QA Inspector observed ABF welding personnel Fred Kaddu (#2188) had started 3 separate excavations located between the 2nd, 3rd and 4th stiffeners of weld "D2" and ABF welding personnel Rick Clayborn (#2773) excavating several repair area which had been started the previous day on weld "D1". This QA Inspector observed QC Inspector Tony Sherwood present and monitoring the work.

At weld joint E2/E3-D1 and D2 outside the OBG section this QA Inspector observed ABF welding personnel Mitch Sittinger (#0315) was in the process of excavating weld repairs with QC Inspector Jesse Cayabyab present. This QA Inspector randomly observed QC Inspector Jesse Cayabyab performing Ultrasonic Testing (UT) at various weld repair area on weld E1/E2-D1 and D2. QC Inspector Jesse Cayabyab informed this QA Inspector the UT was a preliminary inspection because repair welding had only been completed several hours previously. QC Inspector Jesse Cayabyab implied one of the areas was producing several signals in excess of the acceptance criteria and that it appeared several defects were present which were previously masked by the first defect.

In general the work and welding observed by this QA Inspector appeared to comply with the contract requirements.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer